

NOTES ON NESTS OF *AMEGILLA* (*ASAROPODA*) SP. (HYMENOPTERA: ANTHOPHORIDAE)

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Abstract

Observations of an *Amegilla* (*Asaropoda*) nesting aggregation are presented. Comparisons with other recorded *A. (Asaropoda)* nests are discussed.

Introduction

A nesting site of a species of anthophorid bee, *Amegilla* (*Asaropoda*) sp., was located on the southern shoulder of the Diamantina Developmental Road, approximately 200 m west of the turnoff to Clifton homestead (67.5 km SE Windorah 25°40'S 143°09'E).

Nests of *Amegilla* (*Asaropoda*) spp. have previously been reported from the Sydney district by Rayment (1935, 1951); for *A. (Asaropoda) dawsoni* (Rayment) from near Carnarvon, Western Australia by Michener (1965) and for *A. (Asaropoda)* near *bombiformis* from Brisbane (Cardale 1968).

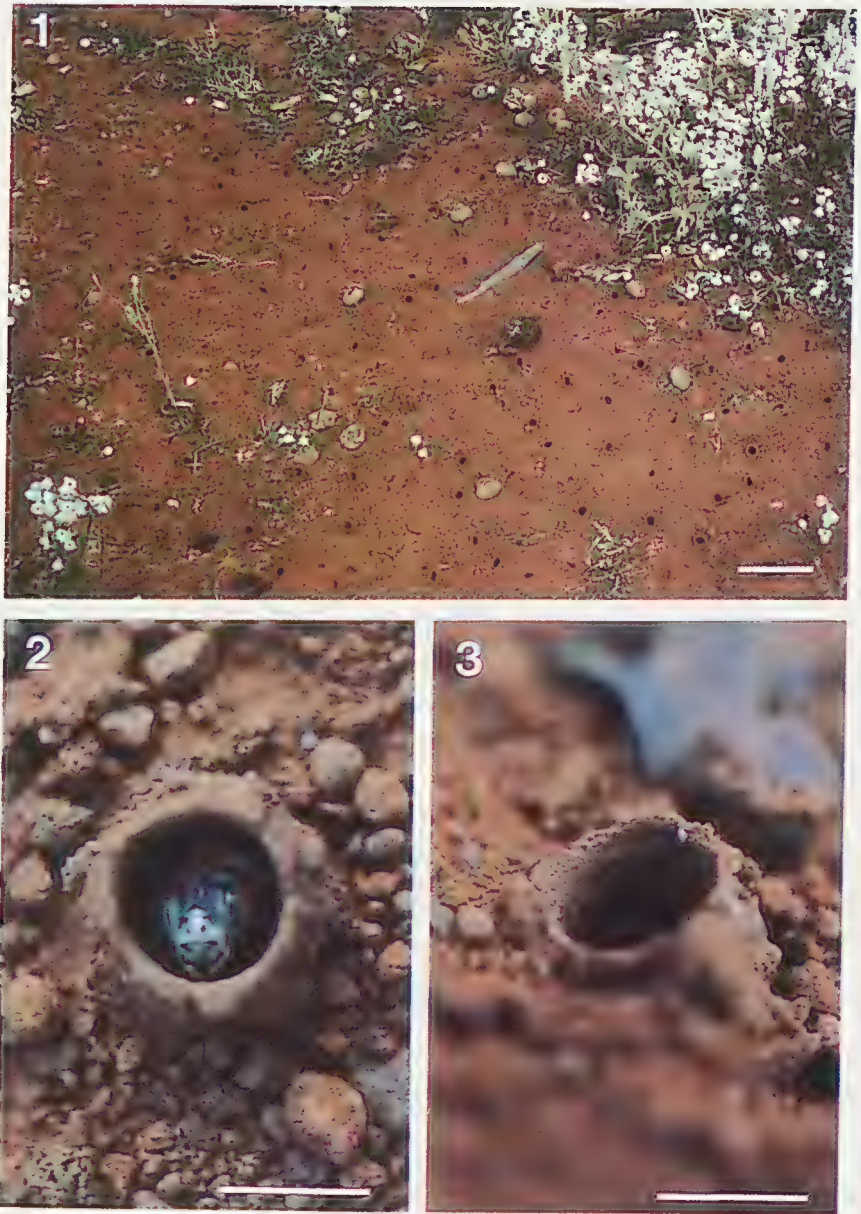
The bees located near Clifton differ morphologically from both *A. (Asaropoda)* near *bombiformis* (Smith) and *A. (Asaropoda) dawsoni*, as represented in the University of Queensland Insect Collection (UQIC), in colouration of hair and integument; they are about half the size of *A. (Asaropoda) dawsoni* and lack the basal black hair band of the second metasomal tergum possessed by *A. (Asaropoda)* near *bombiformis*. Voucher specimens from the Clifton nest site have been deposited in UQIC.

Observations

The nesting site was visited three times: at 1500 h on 18.ix.1990; 0810 h on 20.ix.1990; and about 1400 h on 9.xi.1990. Although part of the road shoulder had been levelled by a grader between the first and second visits, bee activity was high on both occasions, and excavations and provisioning (i.e. females entering the nests carrying pollen on their scopae) were still being carried out in the disturbed area. Seven weeks later (9.xi.1990), no adults were seen and only a few abandoned nest entrances remained.

Nest entrances consisted of holes (Figs. 1, 2) about 1 cm in diameter, in the fine, red, compacted sand; many had a turret (Fig. 3) of small, cemented spheres of sand to a height of about 1 cm. The nests, some of which were between low clumps of *Helipterum floribundum*, were fully exposed to the sun. In contrast, the nests described by Rayment (1935, 1951) and Cardale (1968) were in the shade.

The nesting site was about 1 m wide by 30 m long with the highest density nest entrances per square metre (about 50) in an area of about 6 m² (Fig. 1).



Figs. 1-3. (1). Nesting site of *Amegilla* (*Asaropoda*) sp. Scale bar = 10 cm.; (2). Female at nest entrance. Scale bar = 1 cm.; (3). Low turret of nest entrance on 18.ix.1990. Scale bar = 1 cm.

At the nest site, males flew fast and noisily 0.5-1 m above the ground, attempting to intercept females departing from the nests. Within the nesting site four copulating pairs of bees were observed on the ground on 18.ix.1990 (one pair was collected). When burrowing, females emerged backwards, pushing soil from the nest. Foraging females returning to the nest with pollen on the scopae, spent only 10-20 s down the burrow before reappearing at the nest entrance. These females did not fly away immediately but paused at the nest entrance (Fig. 2) for varying lengths of time. If the nest was approached by an observer, the resident female would retreat down its burrow.

Both female and male *Amegilla* (*Asaropoda*) were collected from *Eucalyptus terminalis* blossom ca 200 m westward along the road. However no *A.* (*Asaropoda*) were collected from a much closer *E. terminalis* ca 50 m south-east of the nest.

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References

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